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Research Roundup

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Student and School Scenes

Enrollment decline continues in 1988-1989

Total enrollment in DVM/VMD-degree programs in the United States and Canada continued to decrease in the 1988-1989 academic year. Enrollment dropped by 136 students, compared with 114 in 1987-1988. The decline continued despite the 41-student increase in Canadian enrollment, the result of another class entering the developing program at the University of Prince Edward Island. For the 1988-1989 academic year, 9,718 students were enrolled (Table 1), including 8,574 in the US colleges and 1,144 in the Canadian colleges.

Statistical information provided by the Association of American Veterinary Medical Colleges indicates that freshman enrollment declined by 12 students in the 27 US veterinary colleges, less than the decline of 66 in the preceding year, and increased by 3 in the Canadian colleges.

Of the total US and Canadian enrollment in DVM-degree programs, female students outnumber male students 57.5% to 42.5% (Table 1), a trend that began in the 1985-1986 academic year.

Total enrollment in US and Canadian graduate-degree and certificate programs in 1988-1989 is 2,738 (Table 2), up by 229 participants or 9% over 1987-1988. The 1988-1989 total includes 1,656 with and 1,082 without DVM or VMD degrees or their equivalent.

Enrollment by class year is presented in Table 3, and geographic distribution of first-year students in the US veterinary colleges is shown in Table 4.

Prepared by Carole S. Jordan, AVMA Division of Scientific Activities, staff writer.

TABLE 1—Total enrollment in veterinary medical degree programs

	Male		Female		Total
	No.	(%)	No.	(%)	
United States	3,649	(43)	4,925	(57)	8,574
Canada	476	(42)	668	(58)	1,144
Total	4,125	(42.5)	5,593	(57.5)	9,718

TABLE 2—Total enrollment in US and Canadian graduate-degree and certificate programs

	MS	PhD	Certificate of internship	Certificate of residency	Certificate of residency and MS	Certificate of residency and PhD	Total
DVM	439	619	123	216	172	87	1,656
Non-DVM	526	556	—	—	—	—	1,082
Total	965	1,175	123	216	172	87	2,738

TABLE 3—Total enrollment of veterinary medical degree students by class year

College	1st Year	2nd Year	3rd Year	4th Year	Total
Auburn University	92	89	87	76	344
California, University of	123	122	116	123	484
Colorado State University	130	122	125	121	498
Cornell University	80	82	75	77	314
Florida, University of	80	85	74	77	316
Georgia, University of	84	72	80	78	314
Illinois, University of	87	77	84	72	320
Iowa State University	74	94	102	106	376
Kansas State University	100	91	94	93	378
Louisiana State University	64	65	79	75	283
Michigan State University	96	98	96	102	392
Minnesota, University of	67	62	89	77	275
Mississippi State University	43	41	44	28	156
Missouri, University of	64	68	69	70	271
North Carolina State University	70	70	85	71	276
The Ohio State University	129	131	123	125	508
Oklahoma State University	70	69	68	69	276
Oregon State University	36	—	—	36	72
Pennsylvania, University of	107	105	105	103	420
Purdue University	60	62	56	58	236
Tennessee, University of	60	61	56	0	177
Texas A&M University	128	110	126	123	487
Tufts University	74	62	62	62	260
Tuskegee University	59	56	40	47	202
Virginia Polytechnic University	78	80	78	78	314
Washington State University	58	98	97	71	324
Wisconsin, University of	82	77	68	74	301
Total-US Colleges	2,195	2,149	2,138	2,092	8,574
Guelph, University of	102	100	100	124	426
Montreal, University of	74	72	74	75	295
Saskatchewan, University of	71	71	71	68	281
Atlantic Veterinary College	47	47	48	0	142
Total-Canadian Colleges	294	290	293	267	1,144
Total-US & Canadian Colleges	2,489	2,439	2,431	2,359	9,718

*Oregon State University veterinary students spend their second year and part of their third year at Washington State University. Therefore, Oregon State's 35 second-year and 35 third-year students are included in Washington State's figures.

TABLE 4—Geographic distribution of entering class of veterinary students in US colleges

UNIVERSITIES																																	
Residence	Auburn	California	Colorado	Cornell	Florida	Georgia	Illinois	Iowa	Kansas	Louisiana	Michigan	Minnesota	Mississippi	Missouri	North Carolina	Ohio	Oklahoma	Oregon	Pennsylvania	Purdue	Tennessee	Texas A&M	Tufts	Tulane	Virginia Polytechnic	Washington	Wisconsin	Total					
Alabama	46												1							1									49				
Alaska		3							1									2								2			8				
Arizona		1	15		1				1			1			1	1		1		1						1			24				
Arkansas										10				6			2			1				3					31				
California	1	116	3			1	2	1	2		4		3				2		1		1		2	4		5	5		153				
Colorado			60						2																		1		63				
Connecticut	1			3	1		2		1		1	1					1		2	1			5				2		21				
Delaware				1															2					1					4				
District of Columbia																													0				
Florida	2			1	73							1								1			2	2			2		84				
Georgia	1					56							2						1					4					64				
Hawaii		1	3						1							1	1							1		1	1		10				
Idaho																													12				
Illinois							79		1		1	1							2	2				1					87				
Indiana								1												41									42				
Iowa								60																					60				
Kansas									50																				50				
Kentucky	36																				1			1					38				
Louisiana										43															1				44				
Maine				1												1							2						4				
Maryland				2							1		1			4			4					4		28			44				
Massachusetts					1						2	4				1	1						42						51				
Michigan	1										82	1	1						1					2					88				
Minnesota	37															1													38				
Mississippi													25											1					26				
Missouri							1							55															56				
Montana		1	6									1						1								2			11				
Nebraska									35						1														36				
Nevada		1	2			1						1			1	2		1								2			11				
New Hampshire									1			1							1				3						10				
New Jersey				7	1				1		2		2	1	1	4	1		16	4	2		4	2	1		1		50				
New Mexico		1	18																				1						19				
New York	1			64	1		1	1				7	4			2	1		1	2	6		10	4			1		106				
North Carolina	1						1								65									2					70				
North Dakota			4					5	1			3																	13				
Ohio												1				97				1				2					101				
Oklahoma																	63												63				
Oregon																1		28											29				
Pennsylvania								2			2	3	1			3			70	2	4			2			2		81				
Puerto Rico				1				2	1		2	1				1			1				5						14				
Rhode Island						1													1			1	1						4				
South Carolina							17									1								2					20				
South Dakota								2																					2				
Tennessee																					41								41				
Texas	1								1				1									128		1					133				
Utah	1	2	12															1		1									17				
Vermont				1												1			3		1								8				
Virginia					1	1			1				2						1		1		1	1	50				60				
Washington												1				1										32			35				
West Virginia						7										5													12				
Wisconsin												3							1									66	73				
Wyoming																		1									1		9				
Dominica																							1						1				
France																			1										1				
Israel																													1				
Jamaica																								3					3				
Sweden																							1						1				
Trinidad																									3				3				
Venezuela																								1					1				
Virgin Islands																									1				1				
West Indies																							2						2				
TOTAL	129	123	130	60	60	44	86	74	100	64	86	36	43	64	70	129	70	37	107	66	58	128	74	60	51	66	62	2	195				

Economic Note

Trends in veterinarians' incomes, 1980 to 1987

On the basis of surveys conducted by the AVMA, the mean professional income of US veterinarians increased from \$41,034 in 1983 to \$47,858 in 1987, an increase of 16.6% over the 4-year period, or a compounded annual increase of 3.9%.^{1,2} Table 1 shows mean incomes and the percentage change for this period for each type of private and nonprivate practice employment.

Private practitioners' mean income increased 17.7% from \$39,669 in 1983 to \$46,892 in 1987. Large animal exclusive practitioners had the largest gain, increasing by 29.6%. Small animal practitioners showed gains of 21 to 22%, whereas equine and mixed animal practitioners showed gains of 16 to 18%. Large animal predominant practitioners' mean professional income increased 11.1% over the 4-year period.

In nonprivate practice, mean veterinarian income increased 14.5%, from \$45,393 in 1983 to \$51,995 in 1987. Armed forces veterinarians and state or local government veterinarians showed the highest percentage gain with 18.8% and 20.2%, respectively. College or university veterinarians' mean income increased 14.0%, while federal government and industry or other veterinarians showed gains

Table 1—Money and real incomes of veterinarians, 1983-1987

	Money income			Real income*	
	1983 (\$)	1987 (\$)	Percentage change, 1983-1987 (%)	1987 (1983 dollars)	Percentage change, 1983-1987 (%)
Private practice†					
Large animal exclusive	42,168	54,859	29.6	47,904	13.6
Large animal predominant	41,530	46,149	11.1	40,446	-2.6
Mixed animal	35,169	40,796	16.0	35,755	1.7
Small animal predominant	35,805	43,784	22.3	38,373	7.2
Small animal exclusive	38,883	46,866	21.2	41,074	6.2
Equine	48,300	57,196	18.4	50,128	3.8
Total	39,669	46,892	17.7	40,922	3.2
Nonprivate practice					
College or university	44,513	50,739	14.0	44,469	-0.1
Federal government	42,431	45,477	7.2	39,857	-6.1
State or local government	37,854	45,500	20.2	39,877	5.3
Armed forces	36,515	43,365	18.8	38,006	4.1
Industry or other	55,784	61,249	9.8	53,680	-3.8
Total	45,393	51,995	14.5	45,570	0.4
All veterinarians	41,034	47,858	16.6	41,944	2.2

*Money income expressed in 1983 dollars, ie, correcting for the increased cost of living measured by the consumer price index (all urban consumers). †Includes veterinarian-owners and veterinarian-employees in private practice; owners' income excludes return on equity in practice real estate.

of 7.2% and 9.8%, respectively.

It is important to determine the extent of increase or decrease in veterinarians' purchasing power by taking into account the effect of price changes. The most widely used measure of changes in prices at the retail level is the consumer price index for all urban consumers. The consumer price index is sometimes referred to as the cost-of-living index.

To analyze veterinarians' professional incomes in real terms, ie, correcting for the increased cost of living, professional incomes for 1987 were expressed in 1983 dollars. The consumer price index increased 14.1% from 1983 to 1987. Therefore in real terms, the mean professional income of veteri-

narians increased 2.2% from 1983 to 1987. Whereas previous survey data documented a 1.6% decline in real income from 1983 to 1985, professional incomes improved from 1985 to 1987.

Mean real nonprivate practice income increased 0.4%, while mean real private practice professional income increased 3.2% over the 4-year period. Federal government, industry, and food animal practice suffered declines in real income of 2% to 6% from 1983 to 1987.

On the basis of the 1985 AVMA manpower study, mean real private practice net individual income was projected to decline by the year 2000 to 75% of its value in the year 1980.³ Most of the decline was projected to occur by 1990 as mean real pri-

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This report is the fourth in a series of monthly Economic Notes summarizing results of the 1988 AVMA Biennial Economic Survey.

vate practice income would fall to 82% of its 1980 level by the year 1990 (Fig 1). From 1980 to 1990 this would represent an 18% decline in projected real income. It was stated in the manpower study synopsis that the impact would be less for some established practitioners than for new veterinarians, but all practitioners would be affected. Specifically, it was believed that the impact of the projected decline would be reflected initially in depressed entry-level salaries, followed by lower overall mean real incomes in subsequent years.

Table 2 shows money and real mean incomes for specific years from 1980 to 1988 for new veterinarians and private practice owners.⁴ Starting salaries increased 24% in money terms, but declined 13% in real terms. Figure 1 reveals that, in real terms, starting salaries have neither gained nor lost purchasing power since 1984.

From 1980 to 1987, private practice owners' mean professional income increased by 48% in money terms, 10 percentage points more than the 38% increase in the consumer price index. From 1980 to 1983, mean real income of practice owners declined by 6%, but has rebounded to a level in 1987 that is 7% greater than that of 1980. These data suggest that, to date, real veterinary practice incomes have not declined as projected in the 1985 AVMA manpower study.

Factors most likely associated with the improvement in real incomes since 1983 are continued expansion in the national economy, expansion in specific veterinary service markets such as feline care, diagnostic testing, embryo transfer, and product sales, and implementation of aggressive public education and marketing activities throughout the profession.

At the time of the AVMA manpower study, available eco-

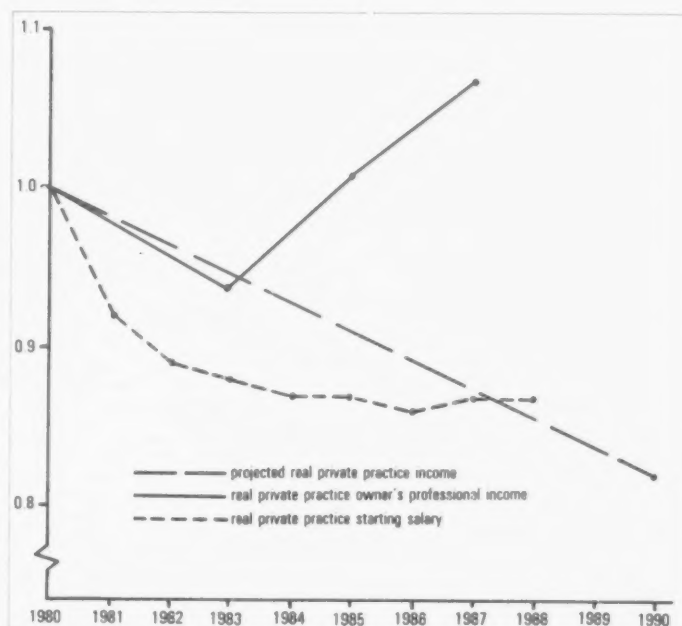


Figure 1—Standardized trends in private practice income (1980 = 1.0).

Table 2—Money and real incomes in private practice, 1980-1988

	1980 (\$)	1983 (\$)	1985 (\$)	1987 (\$)	1988 (\$)
Private practice starting salary					
Money income	18,552	19,872	20,956	22,152	23,079
	(1.00)*	(1.07)	(1.13)	(1.19)	(1.24)
Real income†	22,433	19,872	19,421	19,427	19,443
	(1.00)	(0.89)	(0.87)	(0.87)	(0.87)
Private practice owners' professional income‡					
Money income	38,755	44,249	51,064	57,303	...
	(1.00)	(1.14)	(1.32)	(1.48)	...
Real income	46,862	44,249	47,281	50,222	...
	(1.00)	(0.94)	(1.01)	(1.07)	...

*Numbers in parentheses are standardized values (1983 = 1.00) to indicate change in money and real incomes over time. †Money income expressed in 1983 dollars, ie, correcting for the increased cost of living measured by the consumer price index (all urban consumers). ‡Excludes owners' economic return on equity in practice real estate.

nomie data for the nation and specific veterinary markets did not suggest current trends. Also, and perhaps, more importantly, public education about animal health and marketing activities by veterinary practitioners throughout the nation were initiated on the heightened awareness and knowledge that if the profession did not make major changes to expand veterinary service markets, the projected decline in practitioners' economic well-being was probable.

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